

Final report, Joint Fire Science Program 01-3-1-06

Project Title: Two Demonstration Sites in Northern Arizona for Forest Thinning, Fire Use, and Fire Surrogate Treatments in the Ponderosa Pine Type

Project Location: Fort Valley Experimental Forest & The Nature Conservancy's Hart Prairie Preserve, Coconino National Forest, Northern Arizona

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SUMMARY OF FINDINGS TO DATE

Introduction:

This final report details findings to date and accomplished and forthcoming deliverables. This project began as a means of increasing the internal and external sharing of information from experiments in land management related to fuels and fire management of ponderosa pine and mixed conifer forests by creating two demonstration sites in northern Arizona, with support documentation on an existing website for the Greater Flagstaff Forests Partnership (GFFP) (www.gffp.org). We found that some information existed for the two projects, but that it was not always in the most accessible format, and that critical monitoring information was not being collected, analyzed, and communicated systematically. The current JFSP-funded project has made major contributions toward remedying that situation, and has initiated a process for the Monitoring Team of the GFFP that will continue to improve the collection of data that can be used in an adaptive management framework for the betterment of land management in northern Arizona and possibly in other areas. We were a major contributor to an effort to gather and distribute an annotated bibliography for ponderosa pine restoration that is available on the GFFP website (http://gffp.org/monitor/ref_guide_2.pdf).

Lessons Learned:

We learned that in many cases, the only type of monitoring that is conducted on public lands fuels reduction and forest restoration projects is implementation monitoring, i.e., monitoring that ensures that the prescriptions identified by the interdisciplinary team and spelled out in NEPA documentation is what was applied on the ground. Some effects monitoring is taking place, but at minimum we felt that every project that is designed to reduce fuels and the associated potential fire behavior should have monitoring in place to test whether or not fuels were reduced and by how much. This information should then be synthesized, and the prescriptions used to meet the fuels reduction objective for that area should be evaluated for effectiveness, and new projects should reflect this evaluation in their design and implementation. In areas that have elements of high biodiversity value, some effort should be expended on understanding the effects of treatments on

those species or ecosystems that contribute to the biodiversity value, and similarly, areas of high public scrutiny should include monitoring of social perceptions.

We initiated a process with the Greater Flagstaff Forests Partnership that identified the essential elements of effects monitoring (Monitoring & Adaptive Management Framework), and started the process of acquiring funding and personnel to accomplish the highest priority monitoring identified in the Monitoring & Adaptive Management Framework (http://gffp.org/fort_valley/na_con/mon_frame.htm). We also formed a working team that acquired the tools and training necessary for what we felt was the highest priority monitoring work, assessing changes in fuels and potential fire behavior as a result of thinning and prescribed burning activities in the GFFP project at Fort Valley and other areas. We also decided to make it easier for others to monitor fuels in other projects as well by making data forms and protocols available through the GFFP website (http://gffp.org/fort_valley/na_con/fuels_mon.htm). We are in the process of writing simple, easy-to-follow instructions for use of those data forms, and we are making the results of the monitoring that we conducted at Fort Valley available to others through the same website and through presentations to the fire management community.

Leverage Gained:

One of the major accomplishments of this project is that not only is the Monitoring Team for the GFFP continuing to meet, plan and execute high priority monitoring in conjunction with fuels reduction efforts in the project area, but we helped them acquire funding to continue and expand fuels monitoring through a grant from the National Forests Foundation (http://www.natlforests.org/map_2005awards_r2.html). Also, the Monitoring Team has taken some of the social monitoring issues identified in the Monitoring & Adaptive Management Framework, and fed them into an omnibus survey being conducted by the Social Research Laboratory at Northern Arizona University.

Proposed Deliverable	Delivered
FWUI demonstration site	Two signs installed at demonstration site. We decided to add eight individual unit signs, describing fuel treatments and their effects. The two main signs identified in the proposal are installed, and the eight unit signs will be installed by June 2006. The CD mailed under separate cover contains photographs of the two signs (GFFP_Sign#1.jpg and GFFP_Sign#2.jpg) and a PDF of the sign image (ft_valley_sign.pdf).
Restoration site tour map	This map of the FWUI sites is included in the interpretive sign above, and in the updates to GFFP website below. We tried to interest partners in a broader guide to restoration sites throughout northern Arizona, but decided not to proceed with it after we received minimal interest in participation (1 response out of 14

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	solicitations). The savings realized by not printing this map in hard copy format is the majority of the funding not utilized and hence retained by the Coconino National Forest (\$10,901.02).
A press activity to attract local, state and national attention to both the demonstration sites.	This activity will follow the installation of the interpretive signs (Deliv ID 848, above) to maximize public awareness of the existence of the self guided tour as well as the information available on the GFFP website. This event is expected to occur in May 2006 after the spring mud season.
PowerPoint presentation summarizing the findings of the fire and fire surrogate treatments and the FWUI treatment site.	This PowerPoint presentation is almost completed and will be presented to staff and trainees of the Fire Use Training Academy (FUTA) when time is made available by FUTA staff. This product will be completed by July 1, 2006.
A Power-Point presentation to be given at the Ponderosa Pine Restoration Conferences held at Northern Arizona University. The presentation will summarize the findings of fire and fire surrogate treatments at the FWUI treatment site.	This presentation of fuels monitoring data analysis will be presented as a poster at the “Conserving and Restoring Frequent Fire Landscapes of the West: Linking Science, Collaboration and Practice” conference to be held by Northern Arizona University’s Ecological Restoration Institute in Flagstaff on October 24-26, 2006. Data have been collected and analyzed, and a preliminary draft of the poster prepared (on CD as 2006_ERI_Poster.ppt). This product will be completed by July 1, 2006.
A report building on information available from the research in the ponderosa pine type to promote appropriate fuels and fire management. This information will be presented at the Ponderosa Pine Conference at Northern Arizona Univ. and visiting trainees.	This literature review is 100% completed, and will be posted to the GFFP website, and included on the CD as 2006 Ponderosa Pine fire ecology.pdf.
A summary of findings of fire and fire surrogate treatments from the FWUI treatment site. It will be made available to fire practitioners and other land managers.	This information is included in the above literature review.
Trained volunteers from TNC will facilitate public outreach through semi-weekly guided tours of the HPP treatment site.	We continue to train docents to lead hikes at Hart Prairie Preserve, and they incorporate interpretive information about forest and fire management from the HPP demonstration site. This product is completed, but will continue.
A demonstration by volunteers at the Hart	This information is included in the hikes above.

Proposed Deliverable	Delivered
Prairie Preserve site to instruct visitors in the local ecology, biology, and restoration activities in an informal basis. The site will also have an interpretive sign including this information.	The interpretive sign will be installed in Spring 2006 at Hart Prairie Preserve when snow-melt allows installation of the sign. The sign is being manufactured, and the design is included in the CD as the HPP_demonstration site_sign.ppt. This sign will be installed and completed by July 1, 2006.
Trained volunteers from the GCFP and USFS staff will facilitate public outreach through monthly guided walks of the FWUI treatment site.	These hikes were conducted in 2004 and 2005, and will continue as volunteers, interns, and staff are available. A tour guide has been produced and is available on the GFFP website (http://gffp.org/fort_valley/na_con/fire_walk.htm), and will be included in the CD as the FireWalk Trail Pamphlet.pdf. This product is completed.
A website that provides a virtual tour of the Hart Prairie Preserve. (www.infomagic.net/~tnc/tours/hptour.htm).	This link is no longer active due to a change in vendors by The Nature Conservancy. However, this content will be updated in the near future, and the new Virtual Nature Trail Guide will be posted to our www.Nature.Org website in the future. This product is completed.
The GFFP website will be updated with a summary of findings at the FWUI site and include a "Virtual Restoration Tour" to complement the Restoration Site Tour Map.	As products are completed, they have been posted to the Greater Flagstaff Forests Partnership website. Information is available at http://gffp.org/fort_valley/na_con/ . This product will be completed by July 1, 2006.